DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP **(**sem -1 Session 2024-2025)

Prof. SANIA TAHRIM

Major paper : 1

UNIT VIII: Arthropod

General characteristics and Classification up to classes,

Vision and Respiration in Arthropoda

UNIT IX: Onychophora

Onychophora: General characteristics and Evolutionary significance.

UNIT X: Mollusca

Mollusca: General characteristics and Classification up to classes, Torsion and detorsion in Gastropoda.

UNIT XI: Echinodermata

Echinodermata: General characteristics and Classification up to classes,Water- vascular system in Echinoderm

DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -2 Session 2024-2025)

Prof. SANIA TAHRIM

Major paper : 2

UNIT VI: Amphibia

Origin of Tetrapoda, Amphibia: Specific characteristics and classification up to order; Introduction to Parental care in Amphibians

UNIT VII: Reptilia

Reptilia: Specific characteristics and classification up to order; Poison apparatus, feeding and biting mechanism in snakes

DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -2 Session 2024-2025

Prof. SANIA TAHRIM

Major paper: 3

UNIT II: Skeletal System

Outline of axial and appendicular skeleton (tetrapod): basic plan of bones of skull, girdles and limbs. Classification of vertebrae, structure of a typical vertebra (basic layout), Jaw suspensorium, Visceral arches.

UNIT III: Digestive System Alimentary canal and associated glands, dentition.

UNIT IV: Respiratory System

Skin, gills, lungs and air sacs; Accessory respiratory organs.

Unit VII : sense organs

Classification of receptors, brief account of visual and auditory receptors in man

DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -3 Session 2024-2025)

Prof. SANIA TAHRIM

Major paper : 4

UNIT V: Applied Ecology

Ecology in wildlife conservation and management,

Biodiversity types, Importance & threats, Protected areas:

National Parks,

Bioreserves and Sanctuaries,

Global climate change and its mitigation.

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DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -3 Session 2024-2025)

Prof. SANIA TAHRIM

Major paper : 5

UNIT V: Cytoskeleton

Structure and Functions: Microtubules, Microfilaments and Intermediate filaments.

UNIT VI: Nucleus, Cell Division and Cell Signalling Structure of Nucleus: Nuclear envelope, Nuclear pore complex, Transport of molecules across nuclear membrane, Nucleolus, Mitosis, Meiosis, Cell cycle and its regulation, Basics of Cell Signalling, Apoptosis.

UNIT VII: Histology

Introduction to tissues. Epithelial tissue: types, structure and characteristics. Surface modifications. Basement membrane: structure and characteristics. Connective tissue cells. Blood: structure and functions. Structure and function of loose, dense and adipose tissue. Structure of Cartilage and bone. Muscular tissue: ultrastructure of smooth, skeletal and cardiac muscles. Structure and classification of neurones . Types of supporting cell and their function. membranes of the brain and spinal cord

DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -1 Session 2024-2025)

Prof. SANIA TAHRIM

Minor paper : 1 A

UNIT I: Basic concept of food and nutrition

Food components: Major and supplementary components; Concept of a balanced diet, nutrient needs and dietary pattern for various groups- adults, pregnant and nursing mothers, infants, school children, children, adolescents and elderly.

UNIT II: Nutritional Biochemistry

Carbohydrates, Lipids, Proteins: their dietary source and role: Vitamins: their dietary source and importance: Minerals: their biological functions. Dietary Fibres: definition, their dietary source and nutritional importance. Elementary idea of Probiotics, Prebiotics, Organic Food.

DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -2 Session 2024-2025)

Prof. SANIA TAHRIM

Minor paper : 2 A

UNIT I: Introduction to Sericulture

Sericulture: Definition, history and present status; Silk route; Types of silkworms, Distribution and races; Exotic and indigenous; Mulberry sericulture; Non-mulberry Sericulture, Eri, Muga

UNIT II: Biology of Silkworm

Life cycle of Bombyx mori; Structure of silk gland and secretion of silk; Composition and properties of silk

DEPARTMENT OF ZOOLOGY

DISTRIBUTION OF SYLLABUS FOR FYUGP (sem -3 Session 2024-2025)

Prof. SANIA TAHRIM

Minor paper : 1 B

UNIT I: Biology of Bees

History, Classification and biology of Honey Bees, different species of honey bees- Apis dorsata, Apis cerana indica, Apis florea, Apis mellifera, Melipona sp. Social Organization of bee colony, behavioural patterns (Bee dance, swarming).Of Bees

UNIT II: Rearing Artificial bee rearing (Apiary), Beehives- Newton and Langstroth; Bee Pasturage; Selection of bee species for Apiculture- Apis cerana indica, Apis mellifera; Bee keeping equipment, Methods of extraction of Honey (Indigenous and Modern) and processing; Apiary management- Honey flow period and Lean period.